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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY-ROCKET NO.
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08/984,560 12/03/97 MAILLOUX

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EXAMINER

KIM, H

ART UNIT

PAPER NUMBER

2751

DATE MAILED:

03/17/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/984,560

Applicant(s)

Mailoux et al

Examiner

H. Kim

Group Art Unit

2751

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 (three) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 12/20/99
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 11-21 & 59-61 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 11-21 & 59-61 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

Detailed Action

1. Claims 11-21 and 59-61 are presented for examination. Claims 59-61 have been added by the amendment. This office action is in response to the amendment filed on 12/20/99.
2. The status of the related U.S. applications or patents should be updated and/or included as appropriate in the CROSS-REFERENCE TO RELATED APPLICATIONS section and in any other corresponding area in the specification, if any. (e.g., U.S. Patent Application Serial No. #####,### filed Sept. 07, 1990, now abandoned; ..., now U.S. Patent #,###,### issued Jan. 01, 1994; or This application is a continuation of Serial Number #####,###, filed on December 01, 1990, now abandoned; ...etc.)

Claim Objections

3. Claim 59 is objected to because of the following informalities:

As to claim 59, line 4, "a unpatterned" should be changed to -- an unpatterned--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 USC § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 11-21 and 59-61 are rejected under 35 USC 102(b) as being anticipated by *Manning*, U.S. Patent 5,652,724.

As to claim 11, *Manning* discloses the invention as claimed. *Manning* discloses a storage device comprising: control logic for between a patternless addressing scheme and a patterned addressing scheme (Fig.1 and col. 3 lines 27-45 & col. 7 lines 35-64) and switching circuit for switching between a first pathway and a second pathway (Fig. 1 col. 7 lines 35 +).

As to claim 12, *Manning* further discloses the storage device is asynchronous (Fig. 1 and EDO constitutes asynchronous memory, col. 3 line 34).

As to claim 13, *Manning* further discloses temporary buffer (Fig. 1 Refs. 18 and 34).

As to claim 14, *Manning* further discloses the external address is temporarily stored in the temporary storage device prior to being sent to a decoder (Fig. 1 Refs. 18).

As to claim 15, Manning further discloses counter (Fig. 1 Refs. 40 and 26).

As to claim 16, Manning further discloses the internal address is provided to temp storage device through the switching circuitry (Fig. 1 Refs. 38, 40, 26, 30).

As to claim 17, Manning further discloses a pipeline mode (col. 3 lines 28-29 and lines 41-43).

As to claim 18, Manning further discloses a burst mode (col. 3 lines 37-40).

As to claim 19, Manning further discloses muxes (Fig. 3 Ref. 56 and 58).

As to claim 20, Manning further discloses patternless addressing scheme is for random CAS (col. 3 lines 28-30 & 40-43) and the patterned addressing scheme is for sequence CAS (Fig. 1 Refs. 26 & 30 and col. 7 line 35).

As to claim 21, Manning further the sequence CAS is selected from a group consisting of interleaved (col. 1 line 64) and linear column address access (Fig. 1 Refs. 18 & 34 and col. 3 lines 17-19 & col. 4 line 35).

As to claims 59 and 60, Manning discloses the invention as claimed. Manning discloses a

memory device, comprising:

a memory array (Fig. 1 Ref. 12);

control logic operatively connected to the memory array, the control circuit for selecting between an unpatterned pipeline (col.3 lines 41-44 & col.7 lines 45-46) and a patterned burst data pattern (col. 3 lines 37-39 & col. 7 lines 48-49) for accessing the memory array; and

switching circuit for switching between a first, burst data pathway and a second, pipeline data pathway depending on which of the burst or pipeline modes of operation is selected (Fig. 1 col. 7 lines 35 +).

As to claim 61, Manning discloses the invention as claimed above. Manning further discloses a column address decoder for receiving an external column address (Fig. 1 Ref. 30).

Response to Amendment

6. Applicant's arguments filed on 12/20/99 have been fully considered but they are not persuasive.

Applicant's argument on page 3 middle that col. 3 lines 27-28 does not mention patternless is not considered persuasive. Manning discloses "A data output buffer has a two stage pipeline mode of operation option which allows for further speed incenses by latching --" (col. 3 lines 27-30). Manning Further discloses that "The ability to switch between a standard non-burst mode and a high speed burst mode" (col. 3 lines 37-39) and "Internal address

generation with a pipelined data output provides for faster data access times than is possible with either fast page mode or EDO DRAMS" (col. 3 lines 4-43). See col.3 lines 45-50 for desirability to add pipeline and burst length features into the invention. Therefore, broadly written claims are disclose by the references cited.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. USP 5966724, 19991012, Synchronous memory device with dual page and burst mode operations, Ryan, Kevin J.
2. US 5752269, 19980512, Pipelined microprocessor that pipelines memory requests to an external memory, Divivier, Robert J. , et al..

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

9. When responding to the office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art

disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. § 1.111(c).

10. Applicants are requested to number each line of each claim starting with line number one to provide easier communication in the future.

11. When responding to the office action, Applicant is advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Hong Kim whose telephone number is (703) 305-3835. The Examiner can normally be reached on the weekdays from 8:30 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Eddie Chan, can be reached on (703) 305-9712.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

14. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051-2, (for formal communications intended for entry)


Or:

(703) 305-9731 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

HK

HK
Patent Examiner
March 12, 2000


EDDIE P. CHAN
SUPERVISORY PATENT EXAMINER